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EDUCATION

- 2017: PhD in Ecology and Evolution, University of Bern, CH (defended 13.01.2017).
2011: MSc Global Change Natural Resources and Sustainability. Univ. Córdoba. Spain
2010: BSc in Forest Engineering. University of Córdoba. Spain.

EMPLOYMENT

- Sept. 2024-present: Assistant Professor and group leader of the Forest Ecology Lab, Institute of Plant Sciences, University of Bern.
2020-2024: Senior Scientist (Oberassistent) Plant Ecology, Inst. of Integrative Biology, ETH Zürich
2019-2020: Postdoctoral Researcher, Department of Biology, University of Washington.
2017-2019: Postdoctoral Researcher, Harvard Forest, Harvard University.
2013-2017: PhD student and Laborant II. Institute of Plant Sciences. University of Bern.
2011-2012: Scientific Coordinator. Center for Applied Research in Forestry Development.

FUNDING (TOTAL COMPETITIVE FUNDING GRANTED AND MANAGED AS PI: 1.8+ MILLION CHF)

- 2024-2029: ERC Starting 2022 “Forest biodiversity-stability relationships across spatiotemporal scales”. (1.5 Million €, PI)
2022-2023: Innovedum ETHZürich. “DiQ: Developing an Interactive Toolset for Quantitative Ecology Education”. (60K CHF, Project Manager).
2023: Paul Scherrer Institute SLS. “Predicting the future of Swiss forests – what is the regeneration niche?”. Covering costs of 5 shifts in the TOMCAT beamline of PSI particle accelerator, Swiss Light Sources. (50K CHF, Co-proposer).
2019-2020: Swiss National Science Foundation. Post.Doc Mobility. “The effect of discrete and long-term processes on forest growth synchrony”. (104K CHF, PI).
2017-2019: Swiss National Science Foundation. Early Post.Doc Mobility. “Synchrony in forest growth: from the global to the local scale” (105K CHF, PI).
2014: Trees4Future. “Forest diversity and Intra-specific variability (ForInDiv)” (covered travel, material, and analytical costs, undisclosed, PI).

SUPERVISION OF JUNIOR RESEARCHERS

Official supervision:

- 2024-now: Zabdi López. PhD (supervisor). UniBE – Since 2024
Cecilia Hoffmann. PhD. (PhD advisor). UniBe and WSL. Since 2025
Matteo Trachsel. BSc Thesis. (supervisor). UniBE – 2024
2020-2024: Giacomo Colasurdo. BSc Intern (co-supervisor). ETHZ and Univ. Milan. 2024
Savannah Goetsch. MSc (co-supervisor). ETHZ – 2023-2024.
Anna Görlich. MSc (co-supervisor). ETHZ – 2020-2021
Marc Bast. MSc (co-supervisor). ETHZ – 2022-2023
Emily Gates. BSc ThinkSwiss (co-supervisor). ETHZ and Univ. of Queensland – 2022
2019-2020: JiaJia Su. PhD (co-host and supervisor). Lanzhou University and UW.

Non-official mentoring:

2017-2019: (at Harvard). 2 PhD theses, Junzhou Zhang (visiting PhD, Lanzhou University), and Shoudong Zhao (PhD, Beijing Normal University).
2013-2017: (at UniBe). Biology BSc: Federica N. Schanz.
2010-2013: (at UCO-IDAF). 9 BSc or MSC Theses: Kathelyn Paredes, Bolivia; Euclides Januário, Angola; Laura Ruiz Tudela, José Antonio Rojo, Julia Bohórquez, and Isaac Parejo, Spain; Sarita Bassil, Lebanon; Moustafa Ousmana and Ibrahima Sangare III, Morocco.

TEACHING

- 2024-Now: *Ecology Across Scales* (UniBe. MSc. 8 students, 3 ECTS)
Importance of Biodiversity for Sustainability (UniBe. BSc. Lecturer, 1 module)
SemesterArbeite in Biology (UniBe. BSc. Supervisor, 2-3 students per year).
- 2021-2024: *Quantitative Approaches to Plant Population and Community Ecology* (ETHZ. MSc.
Course coordinator and teacher, c. 20 students)
Ecology and Evolution: Term paper and Seminar (ETHZ. MSc. Supervisor, 1-2
students/year).
Plant Ecology (ETHZ. BSc. 2 modules) and *Advanced Ecological Processes* (ETHZ. MSc. 2
modules). Developing and teaching of interactive modules associated with
Innovedum grant to promote innovation in high education (15-40 students).
- 2022: *Foundations of Teaching and Learning*. ETH Teaching Development and Technology.
Student. 55hours.
- 2020-2022, 2023-: *Praktikum in Unweltbiologie* – Seed predation module. (ETHZ. BSc. 20-30 students).
- 2012: *Habitat prediction models and global change in Mediterranean forests*. University of
Córdoba. MSc. Student teaching assistant.
- 2010-11: University's Forest: Montes de Málaga project. Funded by Univ. of Córdoba within
initiative 'Good practices and innovations in education'. Student teaching assistant.

BOARD AND PANEL MEMBERSHIP, ACADEMIC SERVICES

- 2026: SNSF Belmont Forum Reviewer
- 2025: PI of Tomorrow Session. Life Sciences Switzerland Annual Meeting LS2. Chair and Organizer.
- 2021: Contribution to Diversity in Academy by the Spanish Association of Terrestrial Ecology (AEET).
Award Committee Member.
- 2019: SNSF Project reviewer

Guest Editor for •*Scientific Data*, and •*Agricultural and Forest Meteorology*.

Scientific Reviewer for •*Science*, •*Nature Ecol Evol*, •*J Ecol*, •*Glob Ecol Biogeogr*, •*Ecography*, •*Glob Chang Biol*, •*Clim Change*, •*Agr For Met*, •*Sci Tot Environ*, •*Front Plant Sci*, •*Ecol Evol*, •*Evn Exp Bot*,
•*For Ecol Manag*, •*Forests*, •*Tuexenia*, •*Trees*, •*Tree-Ring Res*, •*Dendrochronologia*, •*Folia Geobot*,
and •*Sustainability*.

Institutional responsibilities:

- 2024-: Diversity Equity and Inclusion Working Group. Biology Dpt. University of Bern
- 2019-2020: Steward of University of Washington Postdocs, Biology (1-year term)

ORGANIZATION OF CONFERENCES & WORKSHOPS

Planned 2027: *Annual Conference of Organismal Biology in Switzerland. Biology27*. Organizer.

- 2023: *Using Interactive and Code-Based Exercises to Enhance Learning*. Main Organizer and lecturer, in collaboration with ETH's Innovedum (<https://ethz.ch/en/the-eth-zurich/education/innovedum.html>) and LET (<https://ethz.ch/en/the-eth-zurich/organisation/departments/educational-development-and-technology.html>). Villa Hatt, Zürich, Switzerland.
- 2021: *Scientific Writing Workshop* for BSc, MSc, and PhD Students, ETH-Zürich (non-officially registered, 8 students). Main Lecturer and Organizer.
- 2019: *Embracing the temporal dimension of ecology*. Co-organizer thematic session. British Ecological Society Annual Meeting 2019. Belfast, Northern Ireland.
- 2011-2012: 4 workshops coordinated by University of Córdoba and University Gabriel René Moreno on tropical and temperate dendrochronology (3 times in person, 1 on-line). Organizer and lecturer.

PRIZES, AWARDS, FELLOWSHIPS

- 2023: 'PIs of Tomorrow: The future of Swiss research'. Jury award at LS2+ Life Sciences Switzerland Annual Meeting.
- 2019: Program for short stays of professors and scientists of prestige by IISTA, Institute of Earth System Investigations of Andalusia. Inaugural talk in international lecture series "Challenges and perspectives of silviculture and forest ecology in a climate change context". Córdoba. Spain.
- 2014, 2016: Young Academics Support to participation in International Meetings. University of Bern.
- 2013: Ubbo Emmius Talent Scholarship. University of Groningen. *Declined to join University of Bern.*
- 2009-2010: Granted Student Assistant . Ministry of Education. Government of Spain.
- 2010: International Cooperation Grant UCO-5B. University of Córdoba.

FULL PUBLICATION RECORD (H-INDEX: 20, TOTAL CITATIONS: 1972 AS OF 17.01.2026)

-Under Review-

- Manzanedo RD**, Viskorpi K, Bieger A, Temperli C, Portier J, Götsch S, & Hille Ris Lambers J. High climatic niche stability across life stages in Swiss forest tree species. *Journal of Ecology (Under review)*.
- Hille Ris Lambers J, Bektas B, Torres A, **Manzanedo RD**, & Feeley KJ. Elevational range shifts of trees in response to a changing climate. *Annual Reviews in Ecology Evolution and Systematics (Under review, invited manuscript.)*
- Su J, Zheng W, Gou X, Chu C, Zuidema P, Wan I, Gu F, Hille Ris Lambers J, Altman J, & **Manzanedo RD**. Bedrock lithology determines forest demographic responses to drought. *Nature Communications (Under review)*.
- Feeley K, Alexander J, Bektas B, Evelin I, **Manzanedo RD**, McMichael C, Torres A, & Hille Ris Lambers J. Thermophilization and changes in community composition due to rising global temperatures. *Global Change Biology (Under review)*.

-2025-

- Su J, Gou X, Hille Ris Lambers, J, Zhang DD, Zheng W, Xie M, & **Manzanedo RD**. 2025. Increasing ENSO variability synchronizes tree growth in subtropical forests. *Agricultural and Forest Meteorology*, 345: 109830.
- Wolkovich EM, Ettinger AK, Chin A, Chamberlain CJ, Baumgarten F, Pradhan K, **Manzanedo RD**, & Hille Ris Lambers J. 2025. Why longer seasons with climate change may not increase tree growth. *Nature Climate Change*.
- Zuidema P, et al. (including **Manzanedo RD**). 2025. Pantropical tree-rings show small effects on stem growth. *Science* 389: 532-538.
- Liao J, Zhang X, Rademacher T, Xu C, Du M, Guo F, Li W, Zhen J, Wu Y, & **Manzanedo RD**. 2025. Slope mediates drought sensitivity but does not affect drought recovery for young trees along elevation gradients in temperate planted larch forests. *Forest Ecosystems*: 100371.
- Groenendijk P, et al. (including **Manzanedo RD**). 2025. The importance of tropical tree-ring chronologies for global change research. *Quaternary Science Reviews*, 355: 109233.

Chin AR, Gessler A, Guzmán-Delgado P, **Manzanedo RD**, Saurer M, & Hille Ris Lambers J. 2025. Rainwater uptake in conifer twigs: Five experiments tell a story of absorption, storage, and transport. *Journal of Experimental Botany*: eraf087.

Vitali V, Jevsenak J, von Arx G, Fonti M, Holloway-Phillips M, **Manzanedo RD**, Treydte K, Walthert L, Zweifel R, & Saurer M. 2025. Effects of soil and atmospheric drought on intra-annual $\delta^{13}\text{C}$ patterns in tree rings. *Tree Physiology*, 45: tpaf120.

-2024-

Manzanedo RD, Chin AR, Ettinger AK, Pederson N, Pradhan K, Guitermann CH, Su J, Baumgarten F, & Hille Ris Lambers J. 2024. Moving ecological tree-ring data forwards: limitations, data integration and multidisciplinarity. *Science of the Total Environment*, 955: 177244.

Visakorpi K, **Manzanedo RD**, Görlich A, Schiendorfer K, Altermatt Bieger AA, Gates E, Hille Ris Lambers J. 2024. Leaf-level resistance to frost, drought and heat covaries across European temperate tree seedlings. *Journal of Ecology*, 112: 559-574.

Zhang X, **Manzanedo RD**, Xu G, & Lapenas AG. 2024. Achieving Sustainable Development Goal 13: Resilience and Adaptive Capacity of Temperate and Boreal Forests Under Climate Change. *Frontiers in Forests and Global Change*, 7: 1356686.

-2023-

Li W, **Manzanedo RD**, Jian Y, Ma W, Du E, Zhao S, Rademacher T, Dong M, Xu H, Kang X, Wang J, Cui X, & Pederson N. 2023. Reassessment of growth-climate relations indicates the potential for decline across Eurasian boreal larch forests. *Nature Communications*: 14, 3358.

Zhang X, Rademacher T, Liu H, Wang L, & **Manzanedo RD**. 2023. Fading regulation of diurnal temperature ranges on drought-induced growth loss for drought-tolerant tree species. *Nature Communications*: 14, 6916.

Cao Z, Zhang J, Gou X, Wang Y, Sun Q, Yang J, **Manzanedo RD**, & Pederson N. 2023. Increasing forest carbon sinks in cold and arid northeastern Tibetan Plateau. *Science of the Total Environment*, 905:167168.

-2022-

Manzanedo RD, John A, Sethi ML, Theobald EJ, Brosy B, Jenkins J, Kloss-Schmidt A, Lia E, Schiffer A, Sevigny J, Wilson A, Yogeve Y, & HilleRisLambers J. 2022. MeadoWatch: a long-term community science database of wildflower phenology in Mount Rainier National Park. *Scientific Data*, 9: 1-10.

Paredes-Villanueva K, Boom A, Ottenburghs J, Van der Sleen P, **Manzanedo RD**, Bongers F, & Zuidema PA. 2022. Isotopic characterization of Cedrela to verify species and regional provenance of Bolivian timber. *Tree-Ring Research* 78: 73-89.

Xu C, Zhang X, Hernandez-Clemente R, Lu W, & **Manzanedo RD**. 2022. Global forest types based on climatic and vegetation data. *Sustainability*, 14:634.

Zhang X, **Manzanedo RD**, Lv P, Xu C, Hou M, Huang X, & Rademacher T. 2022. Reduced diurnal temperature range mitigates drought impacts on larch tree growth in North China. *Science of the Total Environment*, 848: 157808.

-2021-

Su J, Gou X, HilleRisLambers J, Deng Y, Fan H, Zheng W, Zhang R, & **Manzanedo RD**. 2021. Increasing climate sensitivity of subtropical conifers along an aridity gradient. *Forest Ecology and Management*, 482: 118841. HilleRisLambers J, Cannistra AF, John A, Lia E, **Manzanedo RD**, Sethi M, Sevigny J, Theobald EJ, & Waugh JK. 2021. Climate change impacts on natural icons: Do phenological shifts threaten the relationship between peak wildflowers and visitor satisfaction? *Climate Change Ecology*, 2:100008.

Zhang X, **Manzanedo RD**, Xu C, Hou M, & Huang X. 2021. How to select climate data for calculating growth-climate correlation. *Trees*, 6:1-8.

Zhang X, Li X, **Manzanedo RD**, D'Orangeville L, Lv P, Wang C, Xu C, Hou M, Huand X, & Radermacher T. 2021. High risk of growth cessation of planted larch under extreme drought. *Environmental Research Letters*, 16:014040.

Rodríguez-Vallejo C, Navarro-Cerrillo RM, **Manzanedo RD**, Gazol A, & Camarero JJ. 2021. High resilience, but low viability, of pine plantations in the face of a shift towards a drier climate. *Forest Ecology and Management*, 479:118537.

-2020-

Manzanedo RD, & Manning P. 2020. COVID-19: lessons for the climate change emergency. *Science of the Total Environment*, 742:140563.

Navarro-Cerrillo RM, Gazol A, Rodriguez-Vallejo C, **Manzanedo RD**, Palacios-Rodríguez G, & Camarero JJ. 2020. Linkages between Climate, Radial Growth and Defoliation in *Abies pinsapo* Forests from Southern Spain. *Forests*, 11:1-16.

Manzanedo RD. 2020. Review: Dendroecology: Principles and Practices. *Tree Ring Research*, 76(2):102.

Navarro-Cerrillo R, **Manzanedo RD**, Rodríguez-Vallejo C, Gazol A, Palacios-Rodríguez G, & Camarero JJ. 2020. Competition modulates the response of growth to climate in pure and mixed *Abies pinsapo* subsp. *Maroccana* forests in northern Morocco. *Forest Ecology and Management*, 459:117847.

-2019-

Manzanedo RD, Fischer M, Navarro-Cerrillo RM, & Allan E. 2019. A new approach to study local adaptation in long-lived woody species: virtual transplant experiments. *Methods in Ecology and Evolution*, 10: 1761-1772

Zhang X, Bai X, Hou M, Chen Z, & **Manzanedo RD**. 2019. Warmer winter ground temperatures trigger rapid growth of Dahurian larch in the permafrost forest of Northeast China. *Journal of Geophysical Research – Biogeosciences*, 124. DOI:10.1029/2018JG004882.

Zhang X, **Manzanedo RD**, D'Orangeville L, Rademacher TT, Li J, Bai X, Hou M, Chen Z, Zou F, Song F, & Pederson N. 2019. Snowmelt and early-mid growing season water augment tree growth during rapid warming in dry Asian boreal forests. *Global Change Biology*, 25: 3462-3471.

Manzanedo RD, & Pederson N. 2019. Towards a more ecological dendroecology. *Tree Ring Research*, 75(2): 152-159.

Zheng W, Gou X, Su J, Liu W, Fan H, **Manzanedo RD**, & Fonti P. 2019- Physiological and growth responses to increasing drought of an endangered tree-species in southwest China. *Forests*, 10(6): 514.

Penone C, Allan E, Soliveres S, Felipe-Lucía MR, Gossner MM, Seibold S, Simons NK, Schall P, Van der Plas F, Manning P, **Manzanedo RD**, Prati D, Ammer C, Bauhus J, Buscot F, Ehbrecht M, Goldman K, Jung K, Müller JC, Pena R, Polle A, Renner SC, Ruess L, Schöning I, Schrumpf M, Solly E, Tschapka M, Weisser WW, Wubet T, Fischer M. 2019. Specialisation and diversity of multiple trophic groups are promoted by different forest features. *Ecology Letters*, 22: 170-180.

Zhao S, Pederson N, D'Orangeville L, HilleRisLambers J, Boose E, Penone C, Bauer B, Yang Y & **Manzanedo RD**. 2019. The International Tree Ring Data Bank (ITRDB) revisited: data availability and global ecological representativity. *Journal of Biogeography*, 46(2): 355-368.

-2018-

Manzanedo RD, Schanz F, Fischer M & Allan E. 2018. Plant-soil interactions in *Fagus sylvatica* saplings: the role of local adaptation and drought. *BMC Ecology*, 18: 42.

Navarro-Cerrillo RM, Duque-Lazo J, **Manzanedo RD**, Sánchez-Salguero R & Palacios-Rodríguez G. 2018. Climate change may threaten the southernmost *Pinus nigra* populations: An assembled niche-based approach. *iForest – Biogeosciences and Forestry*, 11: 396-405.

Zhang J, Gou X, **Manzanedo RD**, Zhang F & Pederson N. 2018. Cambial phenology and xylogenesis of *Juniperus przewalskii* over a climatic gradient influenced by both temperature and drought. *Agricultural and Forest Meteorology*, 260: 165-175.

Zhao S, Jiang Y, Dong M, Xu H, **Manzanedo RD**, Pederson N. 2018. Early monsoon failure and mid-summer dryness induces growth cessation of lower range margin *Picea crassifolia*. *Trees*, 32(5): 1401-1413.

Manzanedo RD, Ballesteros-Cánovas J, Schenk F, Stoffel M, Fischer M & Allan E. 2018. Increase in CO₂ concentration could alter the response of *Hedera helix* to climate change. *Ecology and Evolution*. DOI: 10.1002/ece3.4388.

-Pre-PhD-

- Navarro-Cerrillo R, Sánchez-Salguero R, Herrera R, Ceacero Ruiz CJ, Moreno-Rojas JM, **Manzanedo RD**, & López-Quintanilla J. 2016. Contrasting growth and water use efficiency after thinning in mixed *Abies pinsapo*-*Pinus pinaster*-*Pinus sylvestris* forests. *Journal of Forest Sciences*, 62: 53-64.
- Navarro-Cerrillo R, Sánchez-Salguero R, **Manzanedo RD**, Camarero JJ, & Fernández-Cancio A. 2014. Site and age condition the growth responses to climate and drought of relict *Pinus nigra* subsp. *salzmannii* populations in Southern Spain. *Tree-Ring Research*, 70: 145-155.
- Navarro-Cerrillo R, Camarero JJ, **Manzanedo RD**, Sánchez-Cuesta R, Quintanilla JL, & Sánchez-Salguero R. 2014. Regeneration of *Abies pinsapo* within gaps created by *Heterobasidion annosum*-induced tree mortality in southern Spain. *Iforest-biogeosciences and Forestry*, 7:209.
- Sánchez-Salguero R, Camarero JJ, Dobbertin M, Fernández-Cancio A, Vilá-Cabrera A, **Manzanedo RD**, Zavala MA, & Navarro-Cerrillo R. 2013. Contrasting vulnerability and resilience to drought-induced decline of densely planted vs. natural rear-edge *Pinus nigra* forests. *Forest Ecology and Management*, 310: 956-967.
- Paredes-Villanueva K, Sánchez-Salguero R, **Manzanedo RD**, Quevedo RS, Palacios G, & Navarro-Cerrillo R. 2013. Growth rate and climatic response of *Machaerium scleroxylon* in a dry tropical forest in southeastern Santa Cruz, Bolivia. *Tree-Ring Research*, 69: 63-79.
- Navarro-Cerrillo R, **Manzanedo RD**, Bohorque J, Sánchez R, Sánchez J, de Miguel S, Solano D, Qarro M, Griffith D, & Palacios G. 2013. Structure and spatio-temporal dynamics of cedar forests along a management gradient in the Middle Atlas, Morocco. *Forest Ecology and Management*, 289: 341-353.
- Camarero J, **Manzanedo RD**, Sánchez-Salguero R, & Navarro-Cerrillo R. 2013. Growth response to climate and drought change along an aridity gradient in the southernmost *Pinus nigra* relict forests. *Annals of Forest Science*, 70: 769-780.

SCIENTIFIC PRESENTATIONS

- 2025: Tree Rings in Archeology, Climate and Ecology 2025. "Bridging gaps in Tree-ring Big Data to improve Ecological Insights?". Umea, Sweden.
- 2024: 8th Asian Dendrochronology Conference. "Moving towards open and representative tree-ring data". Cheongju, South Korea.
- 2023: Ecological Society of America Annual Meeting. "Patterns and limitations in ontogenetic niche shifts across Swiss tree species". Portland, USA.
- 2023: Tree Rings in Archeology, Climate and Ecology, TRACE 2023. "Using bias analyses to improve tree-ring ecological data". Coimbra, Portugal.
- 2023: LS2 Annual Meeting 2023 "Forest biodiversity-stability relationships across spatiotemporal scales". Zürich. Switzerland.
- 2022: International Mountain Conference 2022. "Ontogenetic niche contraction across Swiss tree species". Innsbruck. Austria.
- 2020: Interdisciplinary conference on Humanities, Social sciences, Medicine, Biology, and Mathematics, Natural & Engineering sciences. "Evidence of unprecedented rise in growth synchrony from global tree ring records". On-line.
- 2019: BES Annual Meeting 2019. "Long-term changes in global tree-growth synchrony using tree ring big data". Belfast. Northern Ireland.
- 2018: WorldDendro18. "ITRDB in ecological research: challenges and opportunities". Thimphu, Bhutan.
- 2017: ESA Annual Meeting 2017. "Biotic and abiotic drivers of local adaptation in European dominant species". Portland, USA.
- 2016: Ameridendro16. "Local adaptation and dendrochronology: new paths in ecology and tree-ring science". Mendoza, Argentina.
- 2015: IUFRO Landscape Ecology Conference. "Local adaptation and climate change". Tartu, Estonia.
- 2014: 24th IUFRO World Congress. "Forest biodiversity and local adaptation in dominant European tree species". Salt Lake City, USA.

2013: ClimTree 2013. "Effects of forest biodiversity on local adaptation to climate". Zurich, CH.
Since 2013: 11 invited speaker talks in 9 institutions, including: U. of Valladolid, U. of Extremadura, U. of Córdoba, Harvard U., U. of Columbia, Lanzhou U., U. of Bern, U. Gabriel René Moreno

OUTREACH

2023: Co-organizer: "Alpine meadows and forest floors: How species interact". Booth in Scientifica23 (<https://scientifica.ch/en/ausstellungen/alpine-meadow-and-forest-floor-how-species-interact/>). September 2023. Zürich. Switzerland.

2019: Scientific volunteer for the citizen science project MeadowWatch (<http://www.meadowwatch.org/>). orientation days for Rangers, science divulgation talks, and improving the media presence of the program by updating logos, scientific material, and results communication.

2018: Summer Research Program Harvard Forest, <http://harvardforest.fas.harvard.edu/other-tags/reu>, which offers support to BSc students from over USA, particularly traditionally marginalized groups, to receive mentoring and research experience. Participation as day seminar speaker.

2012: Speaker in the annual activities organized by Córdoba Public Penitentiaries to promote ecological views and scientific understanding in the Spanish inmates. 2012.

2011: Invited speaker in the outreach activity "XIII Technical Speaks on the English Yew and the Tejeda, Almijara and Alhama Mountains" to increase public awareness on the scientific activities to understand how climate change will affect the dry ecosystems in south Spanish mountains.

MENTIONS IN MASS MEDIA

-<https://www.washingtonpost.com/climate-solutions/2020/08/21/questions-about-climate-change-virus/> (related to Manzanedo & Manning 2020).

-<https://www.eenews.net/climatewire/stories/1060322135> (related to Zhang et al. 2019)

-<https://e360.yale.edu/digest/global-warming-is-fueling-growth-spurts-in-some-of-chinas-oldest-trees> (related to Zhang et al. 2019)

-<http://uco.edu.es/servicios/actualidad/vida-academica/item/133375-analizan-los-efectos-del-cambio-global-en-los-anillos-de-crecimiento-de-los-arboles> (related to the IISTA international conference series keynote talk).

-<https://phys.org/news/2018-12-million-tree-stories-accessible-science.html> (related to Zhao et al. 2018)

-https://www.eurekalert.org/pub_releases/2018-12/hu-nsm121118.php (related to Zhao et al. 2018)

-<https://helvia.uco.es/xmlui/bitstream/handle/10396/7851/innovacion16.pdf?sequence=1&isAllowed=y> (related to the creation of the University Forest in Montes de Málaga, award on education innovation by the University of Córdoba).